

ABSTRACT OF THE DISCLOSURE

A reception synchronization apparatus is capable of achieving precise synchronization of an OFDM signal including a frame guard added to the OFDM signal. A demodulating apparatus can be realized using such a reception synchronization apparatus. The reception synchronization apparatus includes a multiplier for calculating the correlation between a received OFDM signal and an OFDM signal delayed by a delay circuit; a moving integration circuit for adding a signal outputted from the multiplier over an entire guard period; n frame guard removing circuits, disposed in correspondence with signals in respective first to nth time slot periods, which respectively receive a signal outputted from the moving integration circuit, remove the frame guard period from the received signal, and output a resultant signal; n interval integrator for cumulatively adding signals outputted from the frame guard removing circuits, for segments of the signal each having an interval equal to the time slot period; and a detection circuit for detecting a maximum peak from the results outputted from the n interval integrators and generating a detection signal indicating a synchronization timing position corresponding to the detected maximum peak position, at which an effective symbol

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period should be extracted.

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